

REMARKS

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

The applicants also appreciate receiving a copy of form PTO-1449, on which the examiner has initialed the sole listed item.

Claims 1-7, 12, 13, 15, and 19 are pending. Claims 8-11, 14, and 16-18 have been canceled without prejudice or disclaimer. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Minor amendments have been made to claims 1, 3, 5, 6, 7, 12, 13, and 15 to clarify the claims and to correct minor defects. No new matter has been added.

NO ——— Claims 1-7 and 12-15 were rejected under 35 USC 102(b) as being anticipated by the patent to Beauseigneur et al. The patent to beaug discloses a porous catalyst support for use in a catalytic converter for treating exhaust gas. The patent to Beauseigneur et al. discloses colloidal particles, which are to be applied to a ceramic substrate. The colloidal particles are bonded to a metal catalyst. It is disclosed at column 6, lines 29 and 30, that the colloidal particles have an average diameter in the approximate range of 1 to 100 nanometers. However, Beauseigneur et al. do not disclose catalyst particles, the mean size of which is less than 100 nanometers, as claimed in clam 1. That is, the colloidal particles of the Beauseigneur patent are not catalyst particles, since the colloidal particles are essentially oxide particles in which a catalyst is dispersed. The colloidal particles of the Beauseigneur patent are part of a washcoat layer for increasing the surface area of the support. Therefore, the catalyst is not loaded "directly" onto a base ceramic surface, as claimed in claim 1. Therefore, the applicants respectfully request that this rejection be withdrawn.

NO ——— Claims 1, 2, 12, and 13 were rejected under 35 USC 102(b) as being anticipated by the patent to Komatsu et al. The patent to Komatsu et al. discloses the use of ultrafine metal particles from 1 to 10nm. However, the patent to Komatsu et al. fails to disclose a ceramic support having a large number of pores that enable particles of the catalyst to be loaded directly

onto a base ceramic surface of the ceramic support. The Komatsu patent discloses a carbon fiber substrate, which is not a ceramic substrate as claimed.

In addition, the ultrafine metal particles of the Komatsu patent are not held in pores of ceramic material. Figure 1 of the Komatsu patent shows that the ultrafine particles are simply attached to a larger particle and are not loaded into pores. Therefore, the applicants respectfully request that this rejection be withdrawn.

1/20/00 — Claims 1-7 and 12-15 were rejected under 35 USC 103(a) as being unpatentable over the patent to Beauseigneur *et al.* As mentioned above, the patent to Beauseigneur *et al.* fails to disclose or suggest catalyst particles where the mean particle size of the catalyst particles is 100 nm or less. Also, the patent to Beauseigneur *et al.* does not disclose or suggest loading catalyst particles "directly" onto a base ceramic surface, as claimed in claim 1. Note that the catalyst in the patent to Beauseigneur *et al.* is dispersed in colloidal particles of oxide material and is not directly held by pores in the ceramic. Therefore, the invention of claims 1-7 and 12-15 is not rendered obvious by the patent to Beauseigneur *et al.*, and the applicants respectfully request withdrawal of this rejection.

1/20/00 — Claims 1, 2, 12, and 13 were rejected under 35 USC 103(a) as being anticipated by the patent to Komatsu *et al.* As discussed above, the patent to Komatsu *et al.* fails to disclose or suggest a ceramic support having a large number of pores that enable particles of the catalyst to be loaded directly onto a base ceramic surface of the ceramic support, as claimed in claim 1. Note that the ultrafine metal particles are not loaded in pores in the Komatsu patent. Therefore, the subject matter of claims 1, 2, 12, and 13 is not rendered obvious by the Komatsu patent, and the applicants respectfully request withdrawal of this rejection.

Claim 19 is new. However, claim 19 is essentially original claim 14 rewritten in independent form, since claim 14 depended on a withdrawn claim. Therefore, claim 19 is the same claim that was earlier presented as claim 14, and the reasons that claim 19 is patentable are the same as those asserted above when discussing the rejections of claim 14.

O.K.
1/20/00 — Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-41 of co-pending application 09/960,498 to Tanaka *et al.* However, at least claims 1 and 17 of application 09/960,498 require an anti-evaporation metal layer on the catalyst particles. Other independent claims of application

09/960,498 require a trap layer upstream of the gas to be purified. No such metal layer or trap layer is described or suggested in the claims of the present application. The office action fails to state why the claims of this application are an obvious variation of the claims in application 09/960,498. The claims of this application are not an obvious variation of the claims in application 09/960,498 and are patentably distinct from those claims, and the double patenting rejection should be withdrawn.

O.K. JWB
Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of co-pending application 09/961,151 to Kondo *et al.* However, all the claims of application 09/961,151 contain limitations that differ significantly from those of the present application. For example, claim 1 of application 09/961,151 requires a different quantity of catalyst at a middle portion of its carrier than at a peripheral portion. Claim 2 of application 09/961,151 requires a different surface area at a middle portion of the carrier. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 09/961,151. The claims of the present application are not obvious variations of the claims of application 09/961,151, as required for an obviousness type double patenting rejection, and are patentably distinct from those claims. Furthermore, the office action fails to indicate why the claims of the present application are an obvious variation of the claims in application 09/961,151. Therefore, the double patenting rejection based on application 09/961,151 should be withdrawn.

KJP
Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of co-pending application 09/961,203 to Nakanishi *et al.* However, the claims of application 09/961,203 require a ceramic with metal elements having NOx absorbent capacity. No similar limitation appears in the claims of the present application. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 09/961,203. Further, the office action fails to indicate why the claims of the present application are obvious variations of the claims of application 09/961,203. The claims of the present application are not an obvious variation of the claims in application 09/961,203 and are patentably distinct from those claims, and the double patenting rejection should be withdrawn.

O.K. JWB
Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-41 of co-pending application 09/966,723 to

Koiki *et al.* However, the claims of application 09/966,723 require a multitude of cells, which are substantially parallel to each other, with the inside thereof serving as a gas flow passage. The claims of the present application contain no similar limitation. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 09/961,203. The office action fails to set forth why the claims of the present application are an obvious variation of those in application 09/966,723. The claims of the present application are not obvious variations of and are patentably distinct from those in application 09/966,723, and the double patenting rejection should be withdrawn.

OK
J.S.P. Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of co-pending application 10/103,568 to Tanaka *et al.* However, the claims of the present application are patentably distinct from those of application 10/103,568. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 10/103,568. The office action fails to set forth why the claims of the present application are obvious variations of those in application 10/103,568. The claims of the present application are not obvious variations of those in application 10/103,568, and the double patenting rejection should be withdrawn.

O.K.
J.S.P. Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of co-pending application 10/180,033 to Tanaka *et al.* However, the claims of the present application are patentably distinct from those of application 10/180,033. Among other things, the claims of application 10/180,033 require a honeycomb-structure and a staggered arrangement. The claims of the present application include no similar limitations. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 10/180,033. The office action fails to set forth why the claims of the present application are obvious variations of those in application 10/180,033. The claims of the present application are not obvious variations of those in application 10/180,033, and the double patenting rejection should be withdrawn.

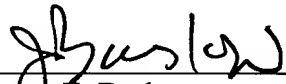
O.K.
J.S.P. Claims 1-7 and 12-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of co-pending application 10/202,826 to Tanaka *et al.* However, the claims of the present application are patentably distinct from those of application 10/202,826. Among other things, the claims of application 10/202,826 require that the catalyst be made of a compound containing no chlorine. The claims of the present

application include no similar limitations. The claims of the present application call for catalyst particles of a particular size, and there is no similar limitation in the claims of application 10/202,826. The office action fails to set forth why the claims of the present application are obvious variations of those in application 10/202,826. The claims of the present application are not obvious variations of those in application 10/202,826, and the double patenting rejection should be withdrawn.

In view of the forgoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,


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